

Book Review

Australian Palms – biogeography, ecology and systematics. J.L.Dowe (2010). CSIRO Publishing: Melbourne. Softcover, 290 pp, numerous colour photographs and black & white illustrations. ISBN 9780643096158. \$140.00 AUD.

Palms are often the bane of botanists and others that wish to identify and collect them for botanical specimens. They are quite easily (along with pandans) the most difficult plants to process to produce anything meaningful for herbaria and those that use them. Despite their paucity in the Australian flora (only 60 species in 21 genera), their identification has not always been straight forward and this is often compounded when plants are cultivated alongside similar, but exotic species.

John Dowe has had a research interest in palms for many years, producing a number of revisions of genera such as *Archontophoenix* and *Livistona*. He has also studied them in numerous locations in New Guinea and the islands of the Pacific. This academic approach to palms has meant that this comprehensive overview is well researched and far from superficial.

The bulk of the book is a standard morphological description of the Australian palms, presented in a formal taxonomic format with citation of type specimens, a detailed description and notes on typification, etymology, distribution and ecology and other points of interest. Each species is illustrated with colour photographs of the plants in habitat, together with photographs of flowers, fruit and leaf details. A photograph of the type specimen (a single sheet only, not including multiple sheet types or carpological material) is also included. A generalised map of Australia with dots of distribution records is provided for each species.

Prior to the taxonomic section, there are a number of general chapters. The early documentation of Australian palms is covered briefly and includes brief biographies of botanists significant for their classification or taxonomy. The historical biogeography of palms is a general chapter with particular reference to Australia and covers fossils, climate change over time and the connection with New Guinea. Distribution and ecology

of Australian palms is extensively reviewed with sections on environments, place in the landscape, phytogeographical regions, distribution patterns, remote distributions, soils, fire, climate, demography, population dynamics and genetics. This is followed by a systematic arrangement of Australian palms following recent molecular driven phylogenies for the group as a whole.

The taxonomic section is arranged in palm subfamilies with keys to genera, followed by keys to species where relevant.

The book ends with chapters on doubtful or excluded names, a field identification key to all species, a checklist of genera and species, glossary, list of references and index.

Overall this is an excellent book. In nearly all instances the data and information incorporated is right up to date, although documentation of distributions moves on and an easy example is for *Linospadix apetiolata*, now known to be more widespread in the Wet Tropics than indicated here. Unlike the book on rainforest pollination reviewed elsewhere in this journal, this time around the references are formally cited in the text and easily found in the bibliography. I would have liked to have seen a guide to collecting herbarium specimens included as few botanical collectors know how to do this properly. It reminds me of the advice traditionally offered on this topic, namely that you selected the palm of interest, then cut it down (or perhaps some lackey did this task?), prior to making the appropriate specimen (Womersley 1981). Hopefully this book will prevent too many tall *Hydriastele costata* being collected in this way and the often important local dominance of palms in certain plant communities can be appreciated and documented more often.

Why CSIRO Publishing chose to produce this book with a paper thin soft cover eludes me. With little to no use, this worthless cover is already curling and any field use will see it disintegrate within days. Hopefully they might correct this and reissue a very worthwhile reference book in a hardcover version.

Reference

WOMERSLEY, J.S. (1981). Plant collecting and herbarium development. *FAO Plant Production and Protection Paper* no. 33. FAO: Rome.

Paul I. Forster, Queensland Herbarium.